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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,575	12/05/2003	Kunihiko Kamio	ACO 369	1530
50488	7590	11/02/2005	EXAMINER	
ALLEMAN HALL MCCOY RUSSELL & TUTTLE LLP			VASUDEVA, AJAY	
806 SW BROADWAY			ART UNIT	
SUITE 600			PAPER NUMBER	
PORTLAND, OR 97205-3335			3617	

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/728,575

Applicant(s)

KAMIO ET AL.

Examiner

Ajay Vasudeva

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-6, 8-14 and 16 is/are rejected.
- 7) ☒ Claim(s) 7 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 May 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *New Rejection*

1. The allowability of the originally presented claim 9 – now presented as an independent claim – is withdrawn in view of examiner's earlier misinterpretation of the claim limitation. This Office action is made Non-Final because it includes additional rejection(s) based on new grounds. The examiner regrets the inconvenience to the applicant and his representative.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 4 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 4 and 12 respectively, use of "a groove ... inside a chine ... along a longitudinal direction ... on a bottom surface" (emphasis provided) makes the claims indefinite. It is not clear if the claimed "groove, chine and the bottom surface" are same or different from the "groove, chine and the bottom surface" recited earlier in the respective independent claims 2 and 9.

### *Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 2, 3, and 9-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Koyanagi (US 5,376,028 A).

Re claim 2, Koyanagi shows a body structure of a jet propulsion watercraft (figure 1), comprising a body having an inner space defined by a hull and a deck, an engine [10] mounted within the inner space of the body, a water jet pump [11] placed behind the engine and configured to be driven by the engine; and a bulkhead [43] placed behind the engine. The bulkhead is configured to separate the inner space of the body into an engine room [168] on a front side within which the engine is contained, and closed rear spaces [183] on a rear side. A first hole [187] is provided in the closed rear space of the body so as to communicate with an outside of the watercraft (see figure 13). The first hole is disposed in a rear end portion of the hull and communicates with an exhaust conduit [184], wherein the exhaust conduit is considered as an equivalent of a "groove" recited in the claim. The exhaust conduit – or the exhaust groove – is disposed inside of a chine to extend along the chine (see fig. 8 and fig. 12).

In claim 2, regarding the limitation "drain hole", applicant may note that engine coolant water is released within the exhaust conduit (see col. 9, lines 45-65), and is eventually discharged from the first hole. Therefore, the "first hole" is considered to be the "first drain hole".

In claim 3, the limitation "second drain hole configured to allow the engine room and the rear space to communicate with each other" (emphasis provided) has been broadly interpreted to mean that "the second drain hole is capable of allowing the engine room and the rear space to communicate with each other". In the present case, a bilge conduit [203] is connected to a bilge pump [204] and passes through a second drain hole in the bulkhead (see fig. 9). Although the Koyanagi reference does not show the engine room and the rear space as communicating with

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each other, it is noted that under certain circumstances – such as a damage/leakage of the pump, or a physical removal of the bilge conduit from the pump – the second drain hole would allow the engine room to communicate with the rear space.

In claim 9, regarding the limitation “the personal watercraft is a stand-up type personal watercraft” (emphasis provided), it is noted that an operator is capable of operating the watercraft in a standing position. Under such a condition of operation, the watercraft would be considered to be a stand-up type watercraft.

6. Claim 9 is rejected under 35 U.S.C. 102(b) as being anticipated by JP 05-085462 A ('462).

JP ('462) shows a body structure of a jet propulsion watercraft (figure 1), comprising a body having an inner space defined by a hull and a deck, an engine [30] mounted within the inner space of the body, a water jet pump [31] placed behind the engine and configured to be driven by the engine; and a bulkhead [88] placed behind the engine. The bulkhead is configured to separate the inner space of the body into an engine room [3] on a front side within which the engine is contained, and closed rear spaces [56, 57] on a rear side. In addition to the closed rear spaces, an open rear space [10] is also provided on the rear side of the bulkhead. A first drain hole [7] is provided in the closed rear space of the body so as to communicate with an outside of the watercraft (figure 3).

Re the limitation “the personal watercraft is a stand-up type personal watercraft” (emphasis provided), it is noted that an operator is capable of operating the watercraft in a standing position. Under such a condition of operation, the watercraft would be considered to be a stand-up type watercraft.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koyanagi (US 5,376,028 A) in view of Hattori (US 6,471,557 B1).

Koyanagi shows a watercraft with an engine room [168], and an exhaust conduit disposed in closed rear spaces behind a bulkhead, as described above.

However, Koyanagi does not teach provision of foam structure contained in the interior of the rear space.

Hattori shows pre-molded foam structure contained in the interior of the rear space behind a bulkhead. The foam structure is provided around the exhaust conduit and provides sound insulation as well as flotation to the hull. The foam includes a plurality of air pockets, and is therefore closed cell foam (see col. 4, line 28-35).

It would have been obvious for one skilled in the art at the time of the invention to fill the rear spaces in the hull of Koyanagi with the closed cell foam structure, as taught by Hattori. Using such foam structure would have advantageously provided additional buoyancy, structural strength as well as sound insulation to the hull.

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9. Claims 5, 6, 8 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koyanagi (US 5,376,028 A) in view of Hattori (US 6,471,557 B1), and further in view of JP 10-203469 A ('469).

Koyanagi, as modified above by Hattori, shows a watercraft with pre-molded foam structure contained in the interior of the rear space.

However, modified Koyanagi does not teach provision of a plurality of foam structures.

JP ('469) shows use of plurality of pre-molded foam blocks in a boat hull.

It would have been obvious for one skilled in the art at the time of the invention to use of plurality of pre-molded foam blocks in the modified boat hull of Koyanagi, as taught by JP ('469). Using such pre-molded foam blocks would have made the task of building the boat much easier and faster, and therefore inexpensive.

10. Claims 13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP ('462) in view of Kelly et al. (US 5,036,789 A).

JP ('462) shows all limitations of claim 9, except the provision of foam structure filled in the interior of the rear space.

Kelly et al. shows a jet propulsion boat with closed cell foam structure filling the interior spaces of the hull so as to provide additional buoyancy and structural strength to the hull (*figure 4; and col. 2, lines 15-25; and lines 39-50*).

It would have been obvious for one skilled in the art at the time of the invention to fill the empty spaces in the hull of JP ('462) – such as the closed rear space of the watercraft -- with

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the closed cell foam structure, as taught by Kelly et al. Having such foam structure would have advantageously provided additional buoyancy and structural strength to the hull.

Regarding the limitation "the foam structure ... is formed in advance", it is noted that such limitation is a process limitation in an apparatus claim, and is being treated as a product by process limitation. As set forth in MPEP 2113, product by process claims are NOT limited to the manipulations of the recited steps, only to the structure implied by the steps. Therefore, no weight has been given to such limitation because JP ('462), as modified, would possess the recited structure of the foam.

Furthermore, even if such process limitation were to be given weight, it may be noted that it would have been obvious for one skilled in the art to form the foam structure at least in advance of shipping the jet propulsion boat from the assembly line. Having such foam structure in place in advance of shipping for sale would have properly equipped the boat with good buoyancy as well as structural strength, thereby making it more attractive to prospective buyers.

#### ***Allowable Subject Matter***

11. Claims 7 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

12. Applicant's arguments with respect to claims 2-6, 8-14 and 16 have been considered but are moot in view of the new ground(s) of rejection.



**Conclusion**


12. This is a Non-Final action.

~~13~~ Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ajay Vasudeva whose telephone number is (571) 272-6689. The examiner can normally be reached on Monday-Friday 12:00 -- 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, S. Joe Morano can be reached on (571) 272-6684. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ajay Vasudeva  
Examiner  
Art Unit 3617

  
AJAY VASUDEVA  
PATENT EXAMINER  
10/27/05